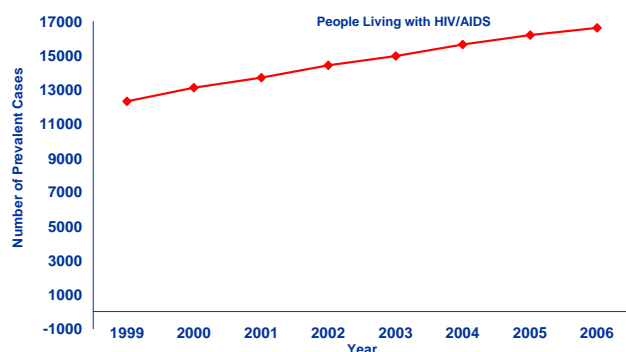




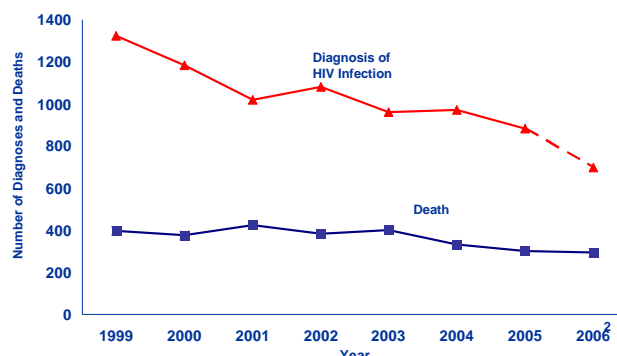
HIV/AIDS Trends from 1999 to 2006

Figure 1. Trends in HIV/AIDS Prevalence by Year: Massachusetts, 1999–2006



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 11/1/07

Figure 2. Trends in HIV Infection¹ and Death among People Reported with HIV/AIDS by Year: Massachusetts, 1999–2006²



¹ Reflects year of diagnosis for HIV infection among all individuals reported with HIV infection, with or without an AIDS diagnosis.
² 2006 Data are preliminary.
Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 11/1/07

Every year, there are more people living with HIV/AIDS in Massachusetts. In the past eight years, the number of people living with HIV/AIDS has increased as new HIV infection diagnoses exceeded the number of deaths among people reported with HIV/AIDS each year. From 1999 to 2006, the number of people living with HIV/AIDS increased by 35%.

General Statistics

- As of November 1, 2007, a cumulative total of 28,861 Massachusetts residents have been diagnosed and reported with HIV infection, with or without an AIDS diagnosis.
 - 42% (N=11,995) have died and 58% (N=16,866) are living with HIV/AIDS.
 - As of November 1, 2007¹, there were 16,866 people known to be living with HIV/AIDS in Massachusetts.
- Including estimates of Massachusetts residents infected with HIV who do not yet know their status or who have not been reported, there are 25,000 – 27,000 individuals currently living with HIV/AIDS in the Commonwealth.
 - An estimated one-quarter do not know their status.

Who is currently living with HIV/AIDS?

- Forty-five percent of people living with HIV/AIDS in Massachusetts are white (non-Hispanic), 28% are black (non-Hispanic), 25% are Hispanic, 1% are Asian or Pacific Islander, and less than 1% are American Indian or Alaska Native. In sharp contrast, black (non-Hispanic) and Hispanic individuals each make up 6% of the Massachusetts population.
- Male-to-male sex and injection drug use are the leading reported risks for HIV infection among people living with HIV/AIDS, accounting for 34% and 25% of all infections, respectively.

¹ Please note that previous editions of the Epidemiologic Profile presented people living with HIV/AIDS as of December 31 whereas this edition presents people living with HIV/AIDS as of November 1 due to the timing of this release.

For detailed data tables and technical notes see Appendix

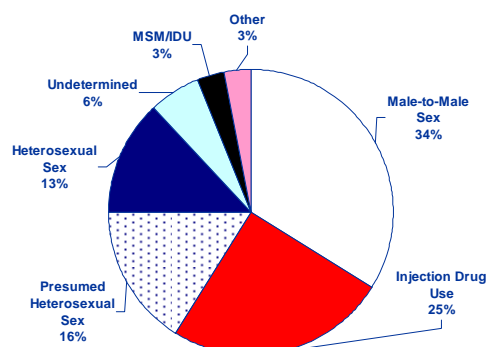
Massachusetts Department of Public Health HIV/AIDS Bureau 250 Washington St. 3rd Floor Boston, MA 02108
617.624.5300

FAX 617.624.5399

<http://www.mass.gov/dph/aids/hivaids.htm>

Future editions will continue to present people living with HIV/AIDS as of December 31.

Figure 3. People Living with HIV/AIDS on November 1, 2007 by Exposure Mode: Massachusetts



Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 11/1/07

- Among **males** living with HIV/AIDS, 52% are white (non-Hispanic), 23% are black (non-Hispanic) and 24% are Hispanic.
- Among **females** living with HIV/AIDS, 29% are white (non-Hispanic) 41% are black (non-Hispanic) and 29% are Hispanic.

Who is experiencing differential impact from HIV/AIDS?

- At age-adjusted prevalence of HIV/AIDS of 1,537 and 1,334 cases per 100,000 population, black (non-Hispanic) and Hispanic individuals are affected at levels 11 and 10 times that of white (non-Hispanic) individuals (135 per 100,000).
- At age-adjusted prevalence of HIV/AIDS of 1,960 and 1,932 cases per 100,000 population, black (non-Hispanic) and Hispanic **males** are each affected at levels 9 times that of white (non-Hispanic) **males** (227 per 100,000).
- At age-adjusted prevalence of HIV/AIDS of 1,177 and 811 cases per 100,000 population, black (non-Hispanic) and Hispanic **females** are affected at levels 24 and 17 times that of white (non-Hispanic) **females** (49 per 100,000).

Who is most at risk of HIV infection?

Trends in the distribution of HIV infection diagnoses from 1999 to 2006 are used to highlight populations at elevated risk of HIV infection. These trends, as well as the distribution of people who were recently diagnosed with HIV infection within the three-year period 2004 to 2006, provide useful information for planning and targeting HIV prevention programs.

- Of all people diagnosed and reported with HIV/AIDS in Massachusetts, 20,455 were diagnosed with HIV infection before 1999, 1,326 were diagnosed with HIV infection in 1999, 1,183 in 2000, 1,020 in 2001, 1,081 in 2002, 963 in 2003, 972 in 2004, and 884 in 2005. As of November 1, 2007¹, 700 HIV diagnoses were reported for 2006. This number will continue to increase as additional cases are reported, likely resulting in a plateau in the number of HIV infection diagnoses over the past four years. As Massachusetts providers who report HIV diagnoses are still transitioning from a change on January 1, 2007 from code to name-based reporting requirements, the 2006 HIV diagnosis data are far more preliminary than one would typically expect by November 1, 2007.
- From 1999 to 2004, the distribution of people diagnosed with HIV infection by gender was 68% to 71% male and 29% to 32% female. In 2005 and 2006, males accounted for a larger (74%) and females a smaller (26%) proportion of HIV diagnoses than in earlier years.
- From 1999 to 2006, the proportion of HIV diagnoses that were among white (non-Hispanic) individuals ranged from 38% to 44%, black (non-Hispanic) individuals from 29% to 34% and Hispanic individuals from 23% to 26%.
- Among **females** diagnosed with HIV infection from 1999 to 2005, the proportion of black (non-Hispanic) females increased from 40% to 53%, while the proportion of white (non-Hispanic) females decreased from 29% to 16%. In 2006 the proportion of black (non-Hispanic) females decreased to 49% while the proportion of white (non-Hispanic) females increased to 24%. From

1999 to 2006, the proportion of Hispanic females ranged from 24% to 31%.

- In 2006, injection drug use accounted for a smaller proportion (10%) of all HIV diagnoses than in earlier years.
- Among **males** diagnosed with HIV infection, the proportion of HIV diagnoses with male-to-male sex as the primary reported exposure mode increased from 40% in 1999 to 57% in 2006.
- From 1999 to 2006, the proportion of HIV diagnoses among **females** exposed to HIV through heterosexual sex with partners of unknown risk and HIV status (presumed heterosexual sex) increased from 31% to 48%.
- From 1999 to 2006, the proportion of people born outside the US among those with HIV infection increased from 19% to 28%.
- During the same time period the proportion of **females** diagnosed with HIV infection and born outside the US increased from 29% to 41%.
- Fifty-one percent of black (non-Hispanic) individuals diagnosed with HIV infection within the three year period 2004 to 2006 were born outside the US compared to 29% of Hispanic and 7% of white (non-Hispanic) individuals.

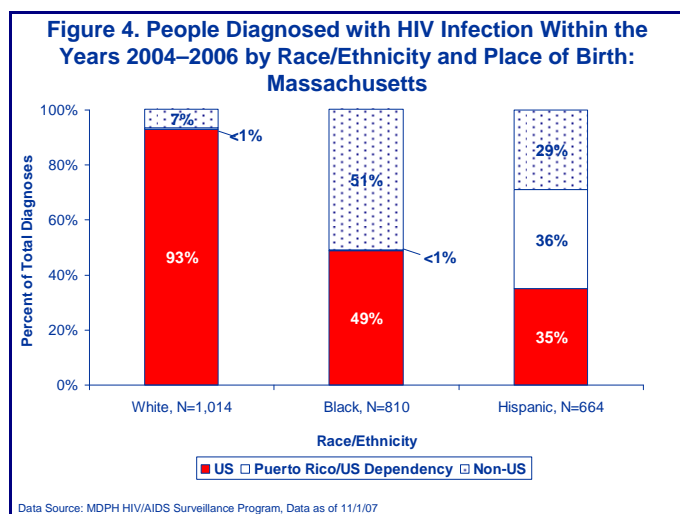
Who is infected with HIV but does not yet know?

People who already have AIDS when HIV infection is diagnosed (or who are diagnosed with AIDS within two months of HIV infection diagnosis) represent a population that may have first learned about their HIV status late in the progression of HIV disease. It is likely that people who are diagnosed with both HIV infection and AIDS within two months have been infected for more time prior to learning their HIV status than people who learn their status earlier in the course of infection.

- From 2004 to 2006, 749 people already had AIDS when HIV infection was diagnosed (or were diagnosed within two months), representing 29% of the 2,556 diagnoses of HIV infection during this time period.
- Thirty-nine percent of people born outside the US who were diagnosed with HIV infection from 2004 to 2006 already had AIDS when they were diagnosed (or were diagnosed within two months), compared to 26% of people born in the US and 25% of people born in Puerto Rico and other US dependencies.

How have patterns of AIDS diagnoses changed over time?

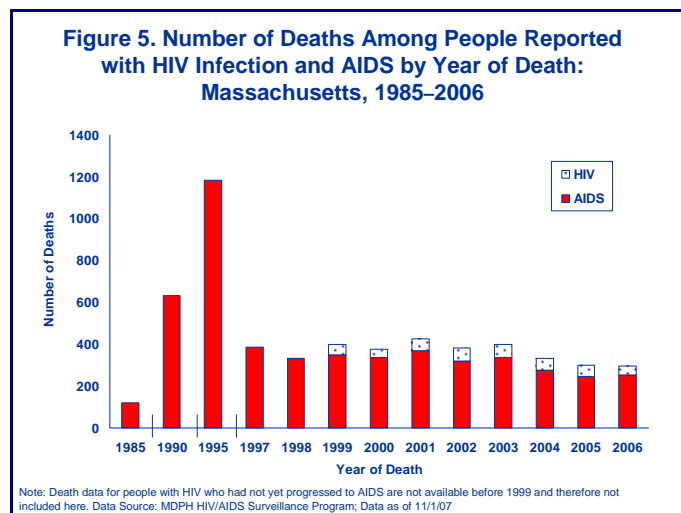
- After reaching a plateau of incidence at around 900 new diagnoses each year from 1997 to 1999, reported AIDS incidence declined from 2000 to 2006.
- From 1997 to 2006, the proportion of newly diagnosed AIDS cases among black (non-Hispanic) individuals ranged from 26% to 34%, white (non-Hispanic) individuals from 38% to 45% and Hispanic individuals from 24% to 28%.
- For 12 years, from 1992 through 2003, the number of new AIDS diagnoses with injection drug use as the reported exposure mode surpassed the number of AIDS diagnoses with male-to-male sex as the reported exposure mode. From 2004 through 2006, the trend reversed with the number of new AIDS diagnoses with male-to-male sex as the reported exposure mode exceeding the number



of those with injection drug use (159 vs. 78 in 2006).

Who is dying with HIV/AIDS and how has this changed over time?

- After reaching a peak of 1,212 in 1994 (data not shown), deaths among people reported with AIDS declined each year until 1998, when there were 332 deaths. (Deaths in people reported with HIV infection [non-AIDS]* are not available prior to 1999 because HIV infection was not a reportable condition before that time.)



without a clear trend. The proportion of deaths among white (non-Hispanic) individuals during this time period ranged from 47% to 55%, black (non-Hispanic) from 23% to 30% and Hispanic from 18% to 27%.

- From 1999 to 2006, the distribution of deaths among people reported with HIV/AIDS by exposure mode remained fairly stable, with over 50% of deaths each year in people with a primary reported risk of injection drug use and 15% to 21% in people with a risk of male-to-male sex.
- From 1999 to 2006, the proportion of deaths among people reported with HIV/AIDS with a primary reported risk of heterosexual sex (with partners with known risk and HIV status) ranged from 7% to 12%, of presumed exposure through heterosexual sex from 7% to 8%, of male-to-male sex and injection drug use (MSM/IDU) from 4% to 6%, and of other risks 1% to 4%.

Data Source: Massachusetts Department of Public Health HIV/AIDS Surveillance Program, Data as of 11/1/07

- From 1999 to 2006, the annual number of deaths of people reported with HIV (non-AIDS)* and AIDS ranged from 424 to 296.
- The proportion of deaths among people with HIV (non-AIDS)* of total deaths among people reported with HIV/AIDS increased from 12% in 1999 to 18% in 2005 and decreased to 15% in 2006.
- The proportion of deaths among people reported with HIV/AIDS who were female increased from 24% in 1999 to 28% in 2006.

* People with HIV infection (non-AIDS) refers to those who were reported with an HIV infection diagnosis and did not progress to AIDS before death.

- From 1999 to 2006, the proportionate distribution of deaths among people reported with HIV/AIDS by race/ethnicity fluctuated